

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A signal amplifier, characterized by comprising a pre-stage circuit for inputting a signal from an external device and a post-stage circuit for amplifying the signal fed from the pre-stage circuit and outputting the signal therefrom, wherein:

input impedance of the pre-stage circuit and output impedance of the post-stage circuit are set to match external impedance in a ~~one or more digit frequency range~~ frequency range of at least several tens of kHz to several tens of GHz; and

output impedance of the pre-stage circuit and input impedance of the post-stage circuit are set to match at impedance lower than the output impedance of the post-stage circuit;

wherein the pre-stage circuit includes an impedance transforming circuit; and

wherein the impedance transforming circuit includes a differential circuit.

2-17. (canceled)

18. (new) A signal amplifier, characterized by comprising a pre-stage circuit for inputting a signal from an external device and a post-stage circuit for amplifying the

signal fed from the pre-stage circuit and outputting the signal therefrom, wherein:

input impedance of the pre-stage circuit and output impedance of the post-stage circuit are set to match external impedance in a one or more-digit frequency range; and

output impedance of the pre-stage circuit and input impedance of the post-stage circuit are set to match at impedance lower than the output impedance of the post-stage circuit; and

wherein an output section of the pre-stage circuit is connected via a capacitor to an input section of the post-stage circuit.

19. (new) A signal amplifier, characterized by comprising a pre-stage circuit for inputting a signal from an external device and a post-stage circuit for amplifying the signal fed from the pre-stage circuit and outputting the signal therefrom, wherein:

input impedance of the pre-stage circuit and output impedance of the post-stage circuit are set to match external impedance in a one or more-digit frequency range; and

output impedance of the pre-stage circuit and input impedance of the post-stage circuit are set to match at impedance lower than the output impedance of the post-stage circuit;

wherein the pre-stage circuit includes an impedance transforming circuit; and

wherein the impedance transforming circuit includes a differential circuit.

20. (new) A signal amplifier, characterized by comprising a pre-stage circuit for inputting a signal from an external device and a post-stage circuit for amplifying the signal fed from the pre-stage circuit and outputting the signal therefrom, wherein:

input impedance of the pre-stage circuit and output impedance of the post-stage circuit are set to match external impedance in a one or more-digit frequency range; and

output impedance of the pre-stage circuit and input impedance of the post-stage circuit are set to match at impedance lower than the output impedance of the post-stage circuit;

wherein the post-stage circuit includes a traveling-wave amplifier; and

wherein an output section of the pre-stage circuit is connected via a capacitor to an input section of the post-stage circuit.

21. (new) A signal amplifier, characterized by comprising a pre-stage circuit for inputting a signal from an external device and a post-stage circuit for amplifying the signal fed from the pre-stage circuit and outputting the signal therefrom, wherein:

input impedance of the pre-stage circuit and output impedance of the post-stage circuit are set to match external

impedance in a one or more-digit frequency range; and

output impedance of the pre-stage circuit and input impedance of the post-stage circuit are set to match at impedance lower than the output impedance of the post-stage circuit;

wherein the pre-stage circuit includes an impedance transforming circuit; and

wherein an output section of the pre-stage circuit is connected via a capacitor to an input section of the post-stage circuit.

22. (new) A signal amplifier in accordance with claim 21, wherein an output section of the pre-stage circuit is connected via a capacitor to an input section of the post-stage circuit.

23. (new) A signal amplifier in accordance with claim 21, wherein an output section of the pre-stage circuit is connected via a capacitor to an input section of the post-stage circuit.

24. (new) A signal amplifier in accordance with claim 1, wherein an output section of the pre-stage circuit is connected via a capacitor to an input section of the post-stage circuit.